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BROOKGREEN GARDENS — AN ENVIRONMENTAL AND ARTISTIC LEGACY

Environment and art are two diverse but related factors in the quality of life for all South Carolinians. They add value to lifetime experiences by delivering increased meaning, satisfaction and productivity.

South Carolina is blessed with numerous resources that embody the environment and art. In this issue of PowerSource, we spotlight one of the resources that brings them together effectively in a unique setting that is a jewel of outdoor attractions in South Carolina—Brookgreen Gardens.

Encompassing more than 9,000 acres of the South Carolina Lowcountry between the Atlantic Ocean and the Waccamaw River in Georgetown County, Brookgreen Gardens is best known for the serenity of its beautiful gardens and its renowned outdoor sculpture collection.

With more than 500 sculpture pieces on display in their outdoor settings and

John Hunchyk.

more than 2,000 species and subspecies of native plants and animals, it attracts more than 200,000 annual visitors. With matchless splendor, Brookgreen Gardens is one of the nation's finest examples of where art and nature intersect.

Brookgreen Gardens is a showcase home to spectacular sculpture in an inspiring environmental setting.

Transformed from four former rice plantations along the Waccamaw River by sculptor Anna Hyatt Huntington and her husband, Archer M. Huntington,



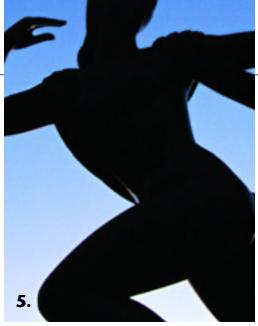
John H. Tiencken Jr.
President and Chief Executive Officer

Brookgreen offers the unique experience of "a quiet retreat from life's hectic pace, a sanctuary where monumental works of art are displayed against a tapestry of live oak trees and towering pines." That was the vision for Brookgreen shared by the Huntingtons and it is the legacy that it has provided.

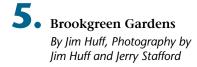
In this issue of PowerSource, we hope you enjoy a tour through one of South Carolina's greatest outdoor attractions—a true addition to the quality of life for those who visit it.



Marc Cardwell, NS&G—Design





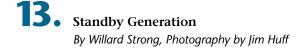




Golf: a Driving Force

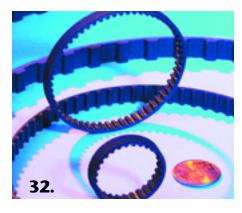
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By Jerry Stafford
Photo from Santee Cooper Archives

Cover: Rays of golden sunlight wrap around Forest Idyl, a classic bronze sculpture by Albin Polásek. It shows a girl looking down at a doe raising its head towards a fawn held in her arms. Placed in Brookgreen in 1932, it is part of the collection of more than 500 sculpture pieces on display in Brookgreen Gardens, which has one of the greatest and largest sculpture gardens in the world.



BROKGREEN GARDENS-WHERE ART AND THE ENVIRONMENT INTERSECT

Nestled among a 9,100-acre

forested reserve in South

Carolina's Lowcountry lies a

natural and cultural jewel

known as Brookgreen Gardens.

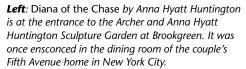


Located between Pawleys Island and Murrells Inlet, Brookgreen stretches from the Atlantic Ocean to the Waccamaw River on land comprised of four former rice plantations. This beautifully manicured showplace features an awe-inspiring display of one of the largest and most diverse collections of American sculpture in the country.

Left: Diana by Paul Manship in 1924 is a gilt-bronze that blends archaic Greek and even Far Eastern sculptural themes.

Top: High Tide by Charles Parks shows a shirtless, barefoot boy in jeans, sitting on top of a piling, laughing with joy as three sea gulls fly around him, two lighting to eat from his outstretched hands. This over life-size piece was cast in 1989.





Right: This red fox is one of five that like to hang out in trees at the Fox Glade along the Wildlife Trail at Brookgreen. Three gray foxes live there also. **Bottom**: The hydrangea macrophylla, commonly known as lacecap hydrangeas are especially beautiful in full bloom during the summer months.





In both arranged gardens and natural habitats, Brookgreen exhibits native wildlife and a bountiful variety of native plants. However, Brookgreen is best known for its attractive gardens and renowned sculpture collection.

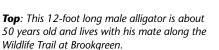
When it was created in 1931 by sculptor Anna Hyatt Huntington and her husband, Archer M. Huntington, Brookgreen's 30-acre display garden was envisioned as a quiet





retreat where art and nature combine to provide a peaceful sanctuary free from life's hectic pace.

The Huntingtons purchased
Brookgreen Plantation in the 1930s as a place to display the works of both Anna and her colleagues. The collection now includes some 823 works representing 305 sculptors and is unrivaled by any



Top Right: Bengal tiger canna lily.

Bottom: Actaeon by Paul Manship is the companion piece to Diana, (opposite page). The story is that Actaeon surprised Diana, the goddess of the hunt, taking her bath, so she turned his dogs into wolves that turned on and killed their master.



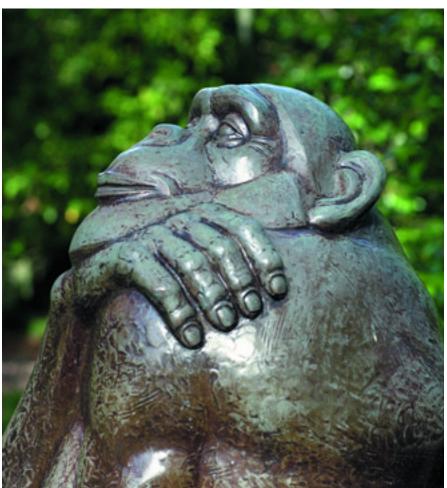


other public or private holding. The collection consists of only American artists from the early 19th century to present.

Brookgreen Gardens contains the Archer and Anna Hyatt Huntington Sculpture Garden, the country's first sculpture garden. More than 550 works of American figurative sculpture are displayed year round throughout one of the greatest and largest sculpture gardens in the world.

Top: This bunny is one of many wild animals that live at Brookgreen and can be glimpsed by the public.

Bottom: Marshall Fredericks' The Thinker (1938) takes a new approach to Auguste Rodin's human The Thinker (1880).



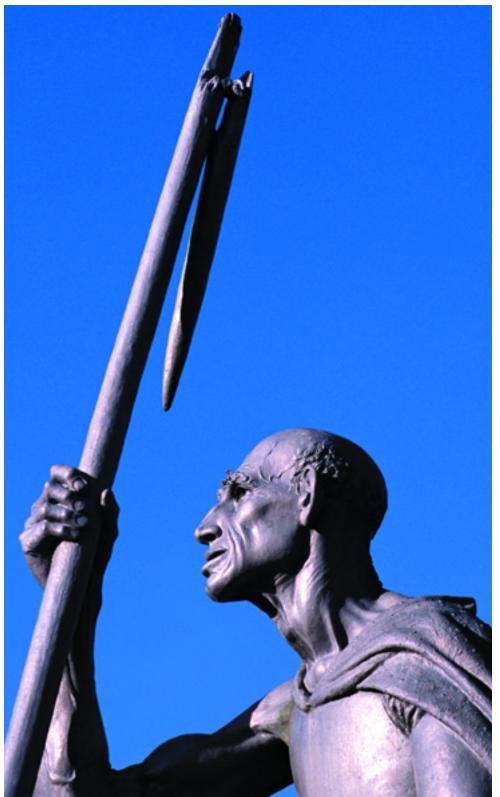


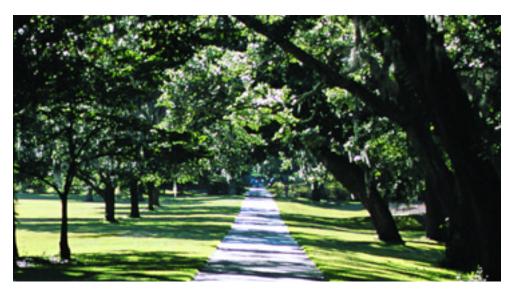
Refreshing and inspiring, sculptures display classic lines of both smooth and textured marble, aluminum, bronze and even gold leaf, and are artfully grouped amidst the stunning textures and colors of nature.

With a continuum of views, moods and experiences that differs hour-by-hour, day-by-day and season-by-season,

Top: The Visionaries by Anna Hyatt Huntington is a self-portrait of the founding couple as they pore over the butterfly-shaped design of the gardens laid out on their lap.

Right: Don Quixote, an emaciated knight in tattered clothes sits astride a dispirited old horse. By Anna Hyatt Huntington, completed in 1947.

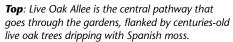






Brookgreen Gardens is one of the nation's finest examples of where art and the environment intersect.

Gardens, landscapes, wildlife, fountains and sculpture are all exhibited in a way that stimulates, relaxes and satisfies. Don't miss it.



Top Right: Yellow-Crowned Night Heron in the Cypress Aviary along the Wildlife Trail.

Bottom: Gazelle by Marshall Fredericks is captured in a characteristic movement called a wheeling. The sculpture was acquired by Brookgreen in 1972.



We pledge allegiance to the flag, of the United States of America...



Pledge Allegiance by Glenna Goodacre is especially popular with families who pose their children with the bronze sculptured figures for a snapshot.



STANDBY GENERATION... A NEW SOURCE OF POWER FROM SANTEE COPER

...adding a layer to Dependable Power

In surveys, customers say dependable power is their top priority. A new service offered by Santee Cooper provides on-site, standby generation to meet customers' needs for immediate restoration of electricity in case of any kind of interruption. Installed and maintained by Santee Cooper, the standby generators start up automatically and deliver power to allow continuation of service.

Charles Stoll, Santee Cooper's supervisor of commercial services, tells a story that provided the impetus for Santee Cooper's entrée into its standby generator lease program.

"Keith Duncan, general engineer with our Commercial Services group, was contacted by one of the major big-box retailers in the Myrtle Beach area, and one of our larger commercial customers. This company had signed a contract several years ago with a firm to provide standby generation in case they needed it," Stoll says.



Left: Dr. William Bogache, surgeon and partner of Grand Strand Urology.

POWERSOURCE

"But when Hurricane Floyd brushed South Carolina in 1999, the company that was to provide the generator did not have any available. The manager may have had a contract but didn't have a generator. He had incurred major product losses at one of his stores because of the extended storm-caused power outage. He asked if Santee Cooper had a program that could provide him with a standby generator. That's when we thought there may be a viable market in offering this service."

A committee was formed in late 1999, led by Patricia Housand, of Santee Cooper's program development group. They investigated the need and interest of commercial customers for standby generation throughout Santee Cooper's service area and predominantly along the Grand Strand. Their study found that as infrequent or brief as

Glen Butler, supervisor of management information systems, Coastal Federal Bank.

interruptions may be, they can be costly, detrimental or totally unacceptable for some customers. More than a momentary loss of power can cause a process or plant to shut down. It can interrupt a life-saving medical procedure. Or it can result in the loss of data, product or output.

This is where the on-site, standby generation comes in. This new service offered by Santee Cooper provides continuity of power supply for those customers who need it as an extra level of assurance. It's a system installed and maintained by Santee Cooper and it is always ready to produce and deliver power in the case of any kind of interruption.

Debuting last June, the program offers broad appeal in that diesel and liquefied-petroleum (LP) generator systems are available up to 2,000 kilowatts, providing backup power for the smallest customers to the largest.

"The program is designed to serve commercial customers who are looking for capital resource options and who want to devote their time and resources to their core business," says Housand. "We offer turnkey installations and provide for regular operation and maintenance of the equipment. The latter is key to the system being ready for operation in the event utility power is lost."

But isn't there irony involved here?

After all, Santee Cooper is a power company that prides itself with a 99.995 percent reliability rating at the distribution level, exceeding the national average. Well, part of the answer is that no electric utility is "storm proof."

Last July's tornadoes at Myrtle Beach proved that, although the outage time for the vast majority of customers was less than six hours. And of course, there's hurricane season, from June to December.

Other things can make the lights go out. A car hits a pole, an underground power line is accidentally severed by a backhoe, or even an animal can short out a line or cause the trip of a relay in a substation, effectively putting a business "in the dark."

"We've been generating, transmitting and distributing power since 1942,"
Stoll says. "This program is simply an extension of being able to provide power to a business all the time under all conditions."

By signing up, a business pays a monthly lease fee to Santee Cooper. After the right-sized generator is selected following a site visit, Santee Cooper buys and installs all the needed equip-



Ed Vick, owner and president of Atlantic Sales and Repair.

ment utilizing authorized contractors.

Options abound. Full-load or partial-load generator systems are available.

Phil Greenway, principal engineer, adds, "Generator systems can be installed on existing facilities as a turnkey retrofit installation or provided as an equipmentonly lease as part of a building addition or remodel contract. What Santee Cooper provides is a one-hour response time for equipment problems 24 hours a day, seven days a week."

Some standby generation is already in place at certain law enforcement and public safety locations, hospitals, water and sewer facilities and the like. But many astute business folks have already stepped up, secure in the knowledge that their business will function through almost any disruption—thanks to this new level of service provided by their power company.

Ed Vick is the owner and president of Atlantic Sales & Repair. The 12-year-old Murrells Inlet firm services oxygen concentrators and fills oxygen bottles used by people living with emphysema, brown and black lung, and other serious respiratory diseases. A wholesaler whose product is sold retail by other firms, Vick was the first business to sign up with Santee Cooper's standby generation program a year ago.

"This program has been very beneficial to me," says Vick, who sees 1,000 oxygen bottles go out the door every week. "I advertise that you can



Donald Godwin, president of Southern Asphalt Co.

always count on getting our product.

It gives me and my customers peace of mind. We feared hurricanes and storms, but now don't have to worry about them as much."

Vick opted for the 475-kW model, which runs on LP gas.

"It's like an insurance policy. You never really want to use it, but it's great knowing the standby generator is there if you need it. Frankly, if Santee Cooper had not offered this program, I would have bought one myself. I also wanted to do business with someone I could count on and I can count on Santee Cooper. It's an excellent program."

Glenn Butler, supervisor of management information systems at Coastal Federal Bank in Conway, believes standby generation gives his financial institution a competitive advantage.

"It means we can keep open the bank," says Butler. "We're totally committed to exceeding the expectations of our customers. People want '24/7' access and it's really pretty simple: If we don't service the customer, they'll go somewhere else."

Coastal Federal Bank opted for 150-kW diesel system installed last February. Butler said doing business with Santee Cooper was simply a logical extension of dealing with their power provider.

"We're good at banking and Santee Cooper is good with electricity," Butler says. "With us, it meant a onestop shop. We looked at owning but Santee Cooper priced it right. There was no reason to look further. I feel very comfortable with Santee Cooper."

Donald Godwin, president of Southern Asphalt in Myrtle Beach decided on a 350-kW diesel system that went into service in June. When his firm is producing asphalt and the power goes out, it can greatly impede major highway and construction projects and be costly to both Southern Asphalt and to its customers. A 350-kW diesel system is in place to meet the need.

"If we don't have power, about 50 people will be out of work," says Godwin.
"This could cost my company from \$40,000 to \$60,000 a day. That's why we have backup power. It's all on an automatic switch. If the power goes off, the standby generator comes on."

The health-care field is a logical application for standby generation, particularly when surgery is being done. In fact, it's a DHEC requirement that surgical facilities

have backup power. That's why Dr.
William Bogache, a surgeon and partner
at Grand Strand Urology has had a 35-kW
LP gas system in service since October.

"It gives us a tremendous comfort level that we have a good company such as Santee Cooper standing behind our system," Bogache says. "We've had no problems since we began seeing patients in October. A big advantage is we know it is being well maintained. We don't have to worry about that and that's important when you're doing about 100 procedures a month."

Greenway, who works out of the Myrtle Beach office and Keith Duncan at Garden City, will continue pitching their various plans to prospects.

"We believe in our product and we offer many options," Duncan says.

"There are a lot of reasons for a business to consider standby generation. But a big one is that a business owner or operator has the ability to be in business when others may not have that ability.

Customers will remember that."



Phil Greenway affixes a Santee Cooper Power decal to a newly installed standby generator.



GOLF: A DRIVING FORCE FOR SOUTH CAROLINA AND THE GRAND STRAND

Golf in America had its beginnings in Charleston, so it's only fitting that three centuries later, South Carolina is a golf mecca with a well-deserved national reputation.

Hilton Head Island and the Santee Cooper Lakes region are both outstanding golf destinations that attract the out-of-state dollar. But it is the Myrtle Beach area that stands head and shoulders above other geographic regions. For example the Grand Strand has:

- Approximately 120 golf courses in the Myrtle Beach area.
- Only three courses that are private.
- The top destination in the U.S. for golf vacations as rated by Golf Digest magazine.
- One million golfers a year playing approximately
 4.3 million rounds.
- A direct economic impact from golf totaling \$700 million annually, part of the statewide total of \$989 million. The Grand Strand's tax impact is \$50 million.





Left: The Dunes Golf and Beach Club in Myrtle Beach is just a sand wedge away from the Atlantic surf and is the only golf course along the Grand Strand with an ocean view.

Top: A blast from a sand trap at one of the Grand Strand's more than 100 golf courses.

"We consider Myrtle Beach to be the golf capital of the world," says Mickey McCamish, president of Myrtle Beach Golf Holiday. "What we've grown into is pretty remarkable when back in the late 1960s, we had only seven golf courses in Myrtle Beach. We've become a year-

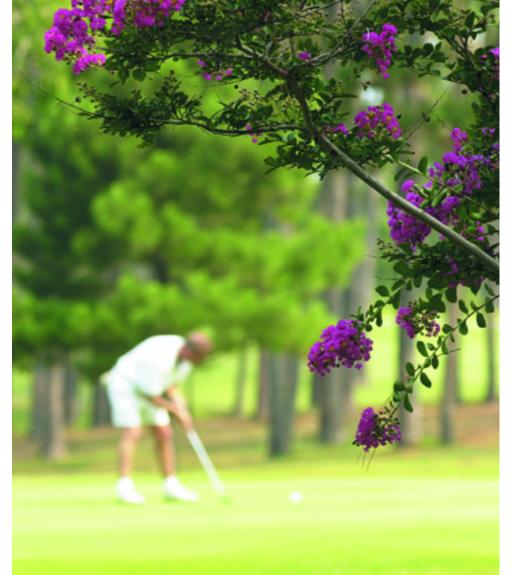
round golf destination. The 'season' is no longer Memorial Day to Labor Day."

McCamish's group was formed in 1967 and has 183 golf courses and hotels as members. The purpose of Myrtle Beach Golf Holiday is to promote Grand Strand golf. Their membership puts together attractive packages to recruit golfers to fly or drive to Myrtle Beach for a top-notch golfing experience.

"About 75 percent of our golfers represent repeat business," McCamish says. "We're bringing in about one million golfers a year. They each spend about \$700 while they're here. What we feel we have here is good value. It's important to provide an affordable experience and we do that. We have a golf package to fit everyone's budget."

Myrtle Beach Golf Holiday's budget is approximately \$8 million, funded by membership fees, government grants, tournament entry fees, accommodations tax dollars and other sources. That money is spent on print and broadcast outlets, and of course, the Internet. A favorite forum is the major golf publications.

Getting golfers from the cold climates of the Midwest or Northeast is where the Myrtle Beach International Airport is perhaps the Grand Strand's greatest golfing asset. Since the Myrtle



Crape myrtles accentuate the rounds at Pine Lakes Country Club, the Grand Strand's first golf course.

Beach Air Force Base closed in the mid-1990s, good air service has matured in northeastern South Carolina.

"About a third of golfers fly in every year," says McCamish, who remembers when only the small Crescent Beach airport served the area. "Today, Atlanta, Cincinnati, Chicago, Detroit, Charlotte, Kansas City and New York are all major feeders into Myrtle Beach. Low-fare airlines such as AirTran, Vanguard and Spirit recognized the great potential and plugged into the golf scene with affordable pricing."

McCamish and a group of area leaders met in January with representatives of JetBlue, a low-fare carrier based in New York's John F. Kennedy International Airport with a hub in Long Beach.

Golf and tourism leaders see JetBlue as a way to offer nonstop service from JFK to Myrtle Beach. McCamish sees that an airline such as JetBlue could give the golf industry a shot in the arm by allowing Myrtle Beach to get into western markets.

The attractiveness is the price. JetBlue officials are touting one-way trips for \$49. McCamish and others say a lot more



Top: Driving down the fairway at Caledonia Golf and Fish Club. Leading to the clubhouse steps, this avenue of moss-draped live oaks marks the site of the old King's Highway, which made its way along the coast in the 1700s.

Below: Golf clubs are a large portion of the baggage unloaded at Myrtle Beach International Airport.

needs to be done to convince JetBlue officials that Myrtle Beach would be a good fit. Airlines in these tight financial times can't afford a misstep. Flights would not begin until next summer at the earliest.

"We try to keep Myrtle Beach on the radar screens of all the air carriers," McCamish says. "We've got a lot to offer and we're very excited about enhancing our air service in this competitive marketplace."

John Durst, director of the S.C.

Department of Parks, Recreation and

Tourism says the possibility of low-fare
airline JetBlue providing service to the

Grand Strand is an exciting development.





Young golfers such as 13-year old Corrine Carr are finding success on the links. She plays daily and is among the highest ranked junior golfers on the East Coast.

"Most of our cooperative efforts, such as the great partnership we have with Myrtle Beach Golf Holiday, have been directed at the 'drive market,' those folks who drive to the Grand Strand to play golf," Durst says. "JetBlue makes the Myrtle Beach golfing experience more accessible for those who want to fly to the Grand Strand to enjoy golf where the options are almost unlimited. It is a very positive thing and it shows we're doing many things to strengthen golf along the Grand Strand."

According to George Hilliard, executive director of the Myrtle Beach Area Golf Owners Association, each course along the Grand Strand averages about 41,000 rounds of golf annually.

"Through last December about 1.5 million of these 4.3 million rounds were 'package rounds' and that's just under 40 percent of all rounds played," says Hilliard. "Walk-ons were about 38 percent."

Ashby Ward, president of the Myrtle Beach Area Chamber of Commerce, believes the number of dollars golfers bring to town simply can't measure the economic impact of

golf on the Myrtle Beach area's tourism economy.



He says the virtual year-round visitor industry here exists largely because golf opened the possibilities for many other tourism opportunities during the non-summer months.

"Entertainment theaters, convention hotels and scores of restaurants would not exist if golf had not proved the viability of attracting tourists throughout the year," says Ward. "Additionally, golfers who are first-time visitors here are amazed by the diversity of Grand Strand activities and immediately make plans to return for a vacation with their families."

Ward says Grand Strand visitors, now about 13.7 million annually, account for

about 35 percent of South Carolina's tourism product. This is part of the \$14.6 billion tourism business in the Palmetto State. Tourism is the state's number one industry, employing 247,000 people.

Attracting tournaments is also important to the area. The Senior Tour and Ladies Professional Golf Association have both had regular stops on the Grand Strand. But a Professional Golf Tournament event such as the Heritage, a staple at Hilton Head Island since Arnold Palmer won the inaugural event in 1969, hasn't happened.

"It's an element that's missing,"

McCamish says. "We've got quite a
few courses that could host a PGA event.

It's something that we will continue to
work on."

Other tournaments do come, such as the DuPont Cool Max World Amateur Handicap Championship set for late summer. There will be golfers from every state and approximately 30 countries. McCamish says it will add

Bordered by the Waccamaw River, a foursome putts in on the 18th green at Caledonia.

about \$12 million to the local economy from Aug. 25 through Aug. 30.

In keeping with McCamish's philosophy that "you need to do things that make you unique," the Grand Strand recently hosted a Firefighters Tournament. This post-Sept. 11 event drew participants from New York City and other locales. It was a well-received gesture of goodwill, generating immense publicity from the likes of *Sports Illustrated* and *Golf Digest* magazines.

It's publicity and good value, not gimmicks and unfulfilled expectations

that will keep the Myrtle Beach golf scene in good steed. Robert Harper, director of golf for Burroughs & Chapin, oversees seven 18-hole golf courses and two par-three courses. He sees his firm, a mainstay on the Myrtle Beach scene for over a half century, as meeting the demand for the more upscale golfer.

For example B&C's Grande Dunes development, with 2,500 acres, will offer real estate development with a golf experience. Of course, homes on golf courses are nothing new. But places with \$2 million homes are.



"We're not only selling golf,
but a potential lifestyle," says Harper,
vice president of the Carolinas PGA.

"We realize we can attract a more
sophisticated golfer." We're still not
getting the type of golfer that you
get in Palm Springs or West Palm Beach.
How do we deal with that? You take care
of the customer when you get them here.
We're doing that now and we'll continue
to do that. And golf in Myrtle Beach is
driven by perceived value."

One thing those in the golf industry lament is the no-growth state of the game, even after three-time Masters champion Tiger Woods has burst upon the scene.

"We need to initiate growth," says Harper, who was instrumental

in developing the highly regarded Wild Wing course. "Growth has not increased since 1994. Tiger has brought more people to identify with the game, but it really hasn't brought more people to the golf course."

Harper says introducing golf to youngsters in the schools is an investment that would result in many lifelong golfers. In the meantime, golf promoters will continue to sell their game for duffers of all abilities and incomes. Whatever your preference and whether you're from Cincinnati or have lived in the Palmetto State all your life, there's a golfing experience waiting on you.

A group of golfers from Cincinnati make their rounds at Grande Dunes, one of the newest golf courses along the Grand Strand.



GOLF: MEANS BUCKS AND JOBS FOR SOUTH CAROLINA

"Golf is an extremely important part of our \$14.6 billion tourism industry," says John Durst, director of the S.C. Department of Parks, Recreation and Tourism. "What we have, because of the strength of golf in our tourism mix, is an interdependence within the state's economy.

"For example, golf and real estate development are a good combination in many locations in South Carolina. These developments are attracting many retirees we want in our state. Golf is a hub and things like that are spokes attached to the hub. Those spokes represent the many businesses that provide goods and services to keep golf courses running."

Durst says a recent study on the economic impact of golf in South Carolina reported that golf generates more income than any other single

entertainment or recreation activity in the Palmetto State. "In fact, throughout communities and regions in South Carolina, golf is more than a game or recreational activity. It is an industry of tremendous impact and importance, worth \$1.5 billion annually statewide."

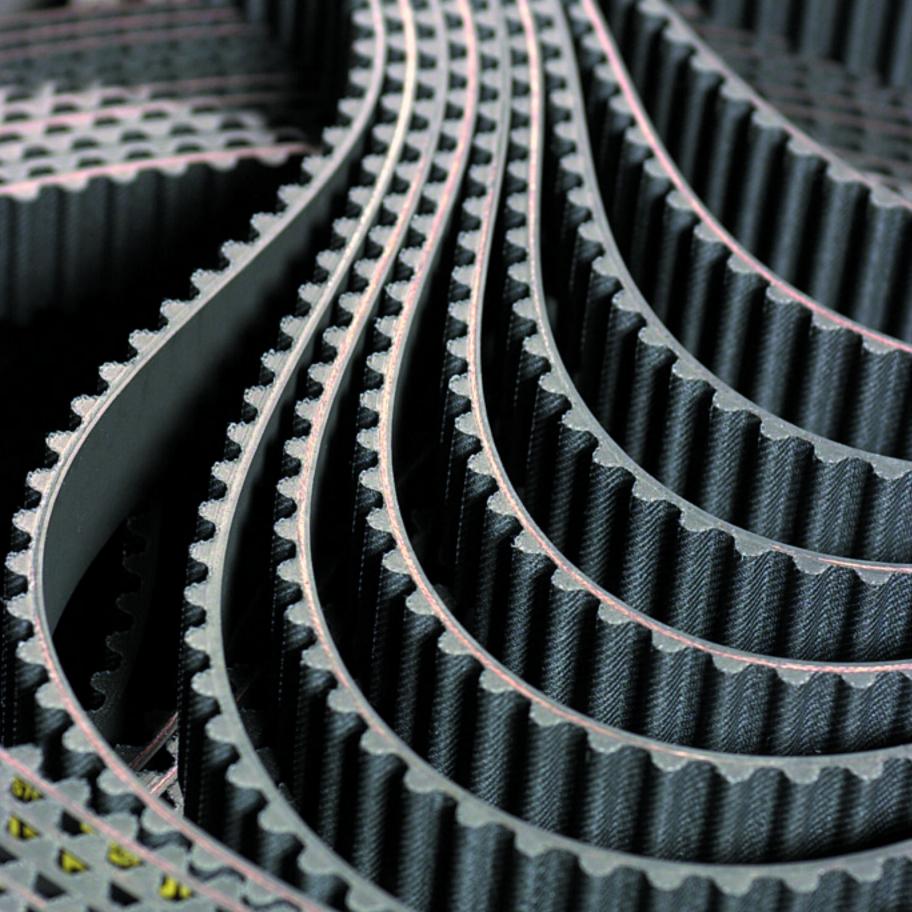
The study, funded and produced by the S.C. Department of Parks, Recreation and Tourism and the South Carolina Golf Course Owners Association, confirms that golf is a catalyst for economic growth and development throughout South Carolina, according to Durst. He cites numbers from the study that paint a positive picture of that impact:

- Golf course operations and off-course expenditures of visiting golfers generate an estimated total annual economic impact of \$1.547 billion.
- The economic activity resulting from golf course operations and spending by visiting golfers produces 30,239 jobs in all types of industries. Personal income from these jobs is worth \$578 million in total payroll. Compensation averages \$19,114 per new job created.
- State industry sectors benefiting the most from golf are: restaurants (\$409 million and 11,442 jobs), lodging (\$406 million

- and 8,123 jobs), other service sectors (\$169 million and 3,090 jobs), finance/insurance/real estate sectors (\$139 million and 849 jobs), and retail sectors (\$113 million and 2,862 jobs).
- The tax revenues received by state and local governments from South Carolina golf activity total \$104 million. In 2001, fees from golf, driving ranges and tennis generated \$11.5 million in admissions tax revenues alone, accounting for over 42 percent of the total admissions collections.
- The average revenue per paid round was \$61.37. In 1997/98, the comparable revenue per paid round was \$48.19, a four-year increase of 27 percent. The major portion of this revenue comes from green fees, cart fees and membership dues, which constitute about 66 percent of revenues, or \$40.32 per paid round. Durst says the study's golf customer profile and the U.S. industry data indicate a bright future for golf in South Carolina
- Eight percent of South Carolina's U.S. visitors, or 2.2 million, played golf or tennis during their visit in the state in 2000, predominately golf, and played multiple rounds. A survey by Golf Digest

and across the nation:

- Research Resource Center in 1995 showed that Myrtle Beach's golf visitors averaged playing seven rounds per person per trip.
- Among state destinations where sports participation in golf, tennis or skiing were reported by U.S. travelers, South Carolina held a 5.3 percent market share, ranking third among the 50 states, following California and Florida.
- Golf visitors travel further to reach South Carolina than state visitors overall. Some major media markets such as New York City, Washington DC, and Philadelphia produce more visitors to South Carolina to play golf than to visit for other purposes.
- Compared to state visitors overall,
 South Carolina golf visitors are older,
 with higher household incomes and
 higher levels of education. They
 report spending \$817 per party per
 visit in the local economy (excluding
 transportation), more than double
 travelers to the state do overall.
- Golf, also popular in Canada,
 Europe and Asia, brings thousands
 of international tourists to South
 Carolina annually.



GATES RUBBER COMPANY'S MONCKS CORNER PLANT KEEPS AMERICA MOVING

Turning the key on an ignition switch, pushing a button for a soft drink or pressing the cash key at an automatic teller machine—all common everyday occurrences.

But did you know that a critical component making these routine events possible is due in large part to a rubber timing belt? In fact, there are thousands of industrial and automotive applications for timing belts in today's world.

Gates Rubber Co.'s Moncks Corner manufacturing facility is a big supplier of rubber timing belts shipped all over the world. The size of these belts ranges from about 4 inches in circumference to 25

feet. Gates has the capability to produce special-order industrial belts of any length specified by the customer.

Officially termed
"power transmission
products," Gates
automotive belts, along
with their automotive hose line,

have earned a well-deserved reputation for quality since the firm was founded in 1917.



Left: Synchronous timing belts manufactured by Gates Rubber Company deliver power to the assortment of automotive front-end accessories such as alternators, water pumps, air conditioners and radiator fans for millions of motorists worldwide.



Richard Kelly hoists a large mold into position in preparation for processing another customer order.

Your General Motors car or truck might have "AC Delco" printed on the belt turning the alternator pulley, but it's probably a Gates product. The same goes for timing belts found on cars made by Honda, Toyota, Ford, Chrysler and Mazda. Gates, based in Denver, Colo., has 66 percent of the timing belt market worldwide, translating into annual revenues of \$500 million.

"By far, we're one of the largest non-tire rubber companies in the world," says Roger Guthrie, plant manager at the Gates manufacturing facility in Moncks Corner, and a 37-year Gates veteran.

"Our business is 60 percent automotive and 40 percent industrial. Obviously, the automotive business is very important to

us as original equipment manufacturers and an aftermarket supplier to NAPA. For example, Honda doesn't make a car without a timing belt."

Chief competitors are Dayco and probably the most famous "rubber name," the Goodyear Tire & Rubber Co. The Gates Rubber Co. revenues annually top \$2.5 billion, marketed by 150,000



Human Resources Manager Gary Steele.

distributors in more than 100 countries.

Timing belts account for about \$500 million of that total.

The automotive timing belt business got a big boost in late 1973. The Arab-Israeli war and the subsequent oil embargo sent gasoline prices skyrocketing — and Americans waiting in line

for a few gallons of gas. Car companies, including America's Big Three automakers, responded to the public's sudden appetite for smaller, more fuel-efficient four-cylinder engines.

The typical four-cylinder overhead-cam engines from that era developed less than 100 horsepower. Most of these gas misers were equipped with a rubber timing belt. Today, these four bangers and V-6s are still mainstays on the automotive scene and must have timing belts to run. Even a Lexus V-8 has a rubber timing belt, an engine that develops over 200 horsepower. A typical overhead-valve American-made inline 6, V-6 or V-8 engine, Detroit's bread and butter since the mid-1950s, has a metal timing chain.



Plant Manager Roger Guthrie.

The demand for timing belts gives the 250 employees working at the 250,000-square foot facility, part of Gates' Power Transmission Division, plenty of work to do. It's a 24-hours-aday, seven-days-a-week operation.

Between 50,000 and 60,000 belts a day are shipped by truck from Moncks Corner. It's a team effort at a plant that emphasizes quality, delivery and continuous cost improvements.

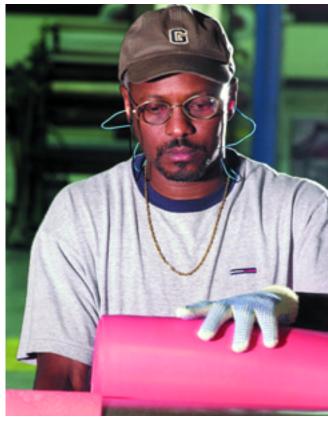
"It's an ongoing process to develop what we term our Gates Enrichment Management (GEM) philosophy." says Human Resources Manager Gary Steele, "Self-managed and empowered work teams are active throughout our plant. These teams are constantly striving to improve all aspects of the business and to meet or exceed the expectations of our customers. The main thing here is we have a dedicated work force with good work ethics."

Says Guthrie, "All team members on every shift are responsible for managing their own business unit. Four 'focus factories,' each made up of manufacturing 'cells,' have a full complement of support personnel. This includes customer service reps, production planners, technical support specialists and quality auditors. Quality is what we're about and the performance of our products bears this out. We're constantly trying to improve. This is a tremendously competitive worldwide market and if you don't keep your customers happy, you're going to have problems."

How Gates Makes Timing Belts

Timing belts made in Moncks Corner are synchronous belts. They feature "teeth" that precisely mesh in pulley grooves. Making the final product work requires extremely complex materials and precision processing.

You live in a tough environment if you're a timing belt. You're exposed to heat, cold and all kinds of nasty environmental conditions. There are over 60 different formulations in the rubber compounds to meet these operating conditions that center around three



George Hall feeds raw rubber into a calender to compress it to desired thickness.

major raw materials to make a belt: nylon fabric, fiberglass cord and of course the rubber compound.

It begins with nylon fabric. This fabric is treated with a black adhesive cement. This makes the fabric sticky so it will adhere to other components. The fabric is then made into a "jacket," which is placed over a grooved mold and put on a lathe.

Next, a tension member such as fiberglass cord, is wrapped around the jacket, onto a metal mold. Two cords with opposite twist are wound side-by-



Annie Jean Weatherford inspects belts and packages them for shipment.

side onto the mold over the nylon fabric to prevent the finished belt from going off the pulley.

"This rubber compound is softened in a machine called a rubber mill,"
Guthrie explains. "It's then fed through a roll calender, capable of making sheeted rubber to any thickness. The finished mold is encased in a wrapping and placed in a vulcanizer under controlled heat and pressure."

Vulcanization is a critical part of the process, increasing the rubber's strength and elasticity. This process pushes the rubber through the tension member and into the nylon jacket. Pressure pushes it into the grooves of the mold, forming the belt's teeth. This finished "slab" is then precision ground, labeled and cut to a customer's requirements.

All this may appear to be simple, but every Gates belt represents 85 years of ongoing research and development.

Every company will tell you they sell quality products. The proof is on the wall in Moncks Corner. They got customer

awards from Ford and Chrysler. But the one they're the proudest of is from Honda, received in May 2001.

Guthrie says your owner's manual probably recommends replacing timing belts every 60,000 to 80,000 miles, depending on driving conditions.

"We're working on a 150,000 mile belt," he says.

Quality, Environmental Recognition

"We're the only U.S. company to have received the Quality, Delivery and Productivity Award from Honda," says



Guthrie. "They are great to work with and we count them as one of our outstanding partners."

The plant is ISO 9001 and ISO
14001-certified, meaning the
International Standards Organization
recognizes their achievement in
manufacturing excellence. The ISO
14001 certification is a major environmental achievement for our plant. Gates
wants to be known as an environmentally
friendly employer in the community.

Gates is one of Santee Cooper's

34 industrial customers located in 11
counties throughout the state.

Santee Cooper has developed a oneon-one relationship with these customers,
something not lost on Guthrie and Steele.

"Developing the Santee Cooper Industrial Customer Association a few years back was a tremendously good thing Santee Cooper did," says Steele. "It's been a big plus."



Robbie Moraux winds fiberglass cord onto a mold for large industrial belts.

"Santee Cooper is very responsive to our needs and the power is very reliable," says Guthrie. "We don't have major problems with power and it's good to have one less thing to be concerned about."

Gates in Moncks Corner has a bright future. Working with the Berkeley County School District, Trident Technical College and Limestone College, employees have abundant opportunities to further their education and be a more valued part of the team.

"The philosophy at Gates is that everybody takes on added responsibilities as team members," Steele says. "We work toward this goal each and every day. But what we think makes us unique at our facility is that people are highly trained, very cross-functional, and display great initiative to get the job done. Our primary goal is to meet or exceed the customer's expectations; this is what has been the key to our success."

TIMING BELT—AN INNOVATION WITH TEETH

Richard Y. Case is the guru of timing belts, according to Roger Guthrie, plant manager at the Gates manufacturing facility in Moncks Corner.

"Case was an engineer and inventor with U. S. Rubber Co. and he literally wrote the book on this technology," says Guthrie. "With his research, development and patents, he shaped the direction of the entire timing belt industry."

Guthrie said that in his 1954 book, "Timing Belt Drive Engineering Handbook," Case said his invention provided design and power transmission engineers "a new and extremely versatile medium for the positive transmission of mechanical power."

He pointed out the advantages of its application for providing efficient, positive transmission of power, precise synchronization or timing between two or more shafts or for serving as a functional machine part, such as a conveyor."

In designing and fabricating an advanced timing belt, Case reduced to a minimum the stretch and pitch variation

(tooth spacing) of the predecessor belts, which were prone to stretch and elongate with extended use, thus losing their clock-like precision of keeping gears, motor parts and mechanisms in perfect synchronization.

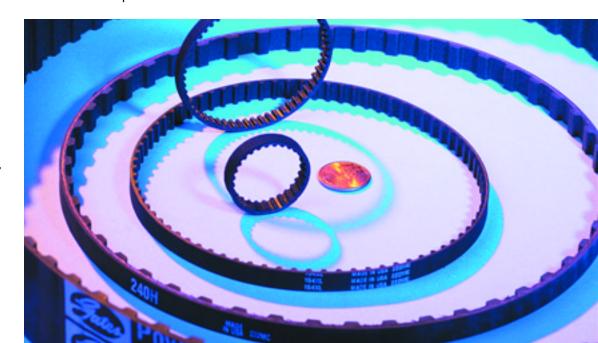
The "new" belt developed by Case solved all of those problems. It was unusually thin, having as its load-carrying element a single layer of continuously wound, high-tensile-strength wire cable or high-tensile, low-stretch textile cord molded in rubber.

The positive, nonslip drive provided a precisely synchronized transfer of power or motion without backlash, generated practically no heat and required no lubrication or need for adjusting tension.

In his handbook Case called his rubber-toothed belt drive a "significant innovation in the field of engineering."

Guthrie says Case greatly understated the impact of his invention.

"His version of the timing belt revolutionized the industry because it replaced a fabric-belt with metal clips that lacked the precision and durability of the rubbertoothed, cord and fiber-bonded timing belt that is today's standard for power transmission and precision."



Expansion brings Micro-V® Belt production to Moncks Corner Plant

New Product Line to Increase Production 40 Percent

After production of millions of automotive and industrial timing belts over the past 26 years at its Moncks Corner plant, Gates will add a new product line that will boost output there about 40 percent and increase employment by about 65 jobs.

The new product is the micro-V belt and you can get a good look at it by raising the hood on almost any new vehicle, says Plant Manager Roger Guthrie.

"You will see one flat rubber belt that winds its way in a serpentine fashion from pulley to pulley, delivering power to the assortment of front-end accessories such as the alternator, water pump, air conditioner, radiator fan, etc. That's the micro-V belt and it's doing the job that previously was done by about three standard-V belts."

The one-inch wide micro-V belt has replaced the assortment of standard V belts that for decades were used to deliver power to all the front-end devices. "The

new micro-V belts are typically wider, much more durable and more flexible than the heavier, bulkier V belts, plus you have only one belt to deal with as opposed to three," explains Guthrie.

The micro-V belt is different from the synchronous timing belts manufactured by Gates at the Moncks Corner plant.

Instead of "teeth" molded into the inside of the belt, the micro-V belts have parallel "V grooves" that allow the belt to be thinner and more flexible than conventional V-belts. It also provides more surface contact with the metal pulleys and allows for some slippage, necessary for driving the vehicle's front-end accessories.

With a capital investment in the millions, this is the first major expansion of Gates' Moncks Corner plant with a new product line, according to Gutherie. "We will add two production cells, each requiring about 25,000 square feet of what was previously space used for warehousing and storage. Construction is



The new Micro-V belt, on the left, compared to the timing belt.

already under way and we expect completion by October with an increase to full production by next May."

The Moncks Corner plant will become the fifth Gates facility to manufacture the micro-V belt in North America.

While Gates has been selected as supplier of the year for General Motors, output at the Moncks Corner plant will fill orders for major automotive parts suppliers offering the AC Delco, NAPA, Gates and CarQuest brands.

NEWSOURCE.

Santee Cooper Moves up to Nation's Number 3 Public Power Generator

Santee Cooper has regained its ranking as the nation's third-largest publicly owned electric utility of its type based on generation, according to statistics recently published by the American Public Power Association.

In APPA's "2002 Annual Directory and Statistical Report," Santee Cooper generated 21,652,517 megawatt-hours during 2000, the latest reporting period used to compare municipally owned, state-owned and district-owned electric systems. Santee Cooper is South Carolina's state-owned electric and water utility.

In the 2001 directory, Santee Cooper weighed in at number four with 19,965,031 mwhs generated. Santee Cooper was ranked third in 2000, generating 19,267,569 mwhs. This year's ranking pushed Santee Cooper ahead of the Puerto Rico Electric Power Authority.

Perennial number one in the most recent rankings is the New York Power Authority. It's followed by the Phoenix, Ariz.-

based Salt River Project, Santee Cooper and the San Antonio City Public Service Board.

After Santee Cooper and Puerto Rico, rounding out the "top 10" are the Nebraska

Public Power District, JEA (formerly the Jacksonville Electric Authority), Utah's

Intermountain Power Agency, MEAG Power (the Municipal Electric Authority

of Georgia), and the Los Angeles Department of Water & Power.

In energy sales, Santee Cooper remains ranked fourth nationally, behind the utilities in New York, Phoenix and Los Angeles.

Approximately 52 percent of Santee Cooper power is delivered to the state's 20 member-owned electric cooperatives, which they distribute to their customers. Santee Cooper directly serves 131,000 retail customers in Berkeley, Georgetown and Horry counties, and generates power for the municipal utilities of Bamberg and Georgetown, the Charleston Air Force Base and 34 industrial customers in 11 counties.

In the Palmetto State, Santee Cooper is the largest provider of electric power based on ultimate customers served. According to South Carolina Public Service Commission data, in 2000 Santee Cooper-generated power for 563,909 customers, followed by SCANA generating for 559,168, Duke Energy for 496,428 and Carolina Power & Light for 173,177.

In terms of energy sales, measured in megawatt-hours, Duke Energy ranked first with 25,325,628 mwh, followed by SCANA with 23,353,221 mwh, Santee Cooper with 22,400,015 mwh and Carolina Power & Light with 8,088,401 mwh.



LEST WE FORGET...

The pesky mosquito. It was the first major obstacle to confront in constructing the Santee Cooper Hydroelectric and Navigation project in the late 1930s. More specifically the challenge was to eradicate *Anopheles quadrimaculatus*, the malaria-bearing mosquito that was the scourge of public health in the Lowcountry.

In 1931, malaria killed 16 of every 100,000 South Carolinians. As the Depression deepened and fewer folks could afford medical care, the number of malaria-related deaths in South Carolina soared to 24.2 per 100,000 in 1937.

For more than 12,000 workers clearing the swamps and pinelands and carving out Lakes



Moultrie and Marion, malaria had to be checked. In fact, the first permanent building constructed on the project housed the Health and Sanitation Division, which waged the war on malaria.

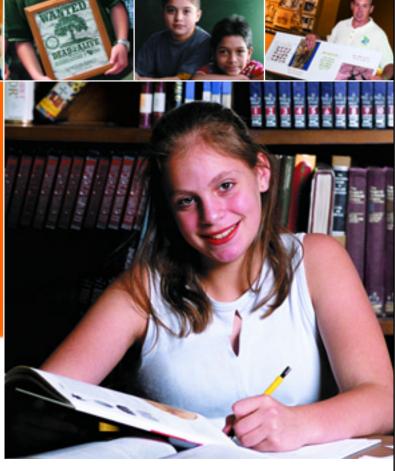
By 1948, less than a decade after the beginning of the mosquito control programs, not a single case of malaria was reported in any of the counties surrounding the lakes. This was a dramatic turnaround from 1,300 cases and 46 deaths in 1939. Santee Cooper's energetic program of spraying and clearing potential breeding grounds eliminated a pestilence that had plaqued South Carolina since the 17th century.

In this photo, workers are shown clearing underbrush along U.S. Highway 52 in a heavily infested area near the route of the historic Santee Canal. They are using hand sprays to cover stagnant pools with an oil spray designed to kill mosquito larvae. When the Santee Canal was constructed between 1793 and 1800, deaths from the scourge of malaria among workers were numerous.



Hannah Freedman, R.C. Edwards Middle School Central, SC

how the world works."



Annual Environmental Essay contests for seventh graders. Energy Education seminars for teachers. Math Buddies. Read with a Child. These are just some of the ways the people at Santee Cooper reach out to the communities we serve. To learn more about our educational programs, visit our special site listed below. By the way, feel free to also explore links to all the other ways Santee Cooper works to make life better for everyone in South Carolina.

sclearn.com

Visit <u>www.sclearn.com</u> for more information on educational outreach programs.

